

Serial Number 10/057,918

AMENDMENTS TO CLAIMS

1. (Currently Amended) A modular optical mouse for a personal computer, the optical mouse comprising:

a body having a predetermined space defined inside the body and having at least one lead securely provided inside the space and electrically connected to at least one contact line extending from the body;

at least one light emitting diode received and mounted inside the space defined inside the body having at least one lead to electrically connect with the lead, the light emitting diode being at a bottom of the body;

at least one control element also received in the predetermined space defined inside the body having at least one lead, said control element arranged to be electrically connected to the lead;

an optical element also received in the predetermined space defined inside the body having at least one lead; and

at least one sensor also received in the predetermined space defined inside the body having at least one lead to electrically connect with the lead and to sense light reflected from a reflective surface by the light emitting diode.

2. (Canceled)

3. (Previously Presented) The modular optical mouse as claimed in claim 1, wherein the control element is a control IC.

4. (Canceled)

5. (Previously Presented) The modular optical mouse as claimed in claim 1, wherein the optical element is composed of a light guide element adjacent to the light emitting diode and a second light guide element adjacent to the sensor.

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6. (Previously Presented) The modular optical mouse as claimed in claim 1, wherein the at least one light emitting diode and the at least one sensor are encapsulated inside the body.

7. (Previously Presented) The modular optical mouse as claimed in claim 1, wherein the light emitting diode, the sensor and the control element are C.O. B. Type.

8. (Previously Presented) The modular optical mouse as claimed in claim 1, wherein the body is so-adapted to be attached to a circuit board to align with a through hole in the optical mouse.

9. (Previously Presented) The modular optical mouse as claimed in claim, wherein the sensor and the control element are integrally formed.

10. (Currently Amended) A modular optical mouse for a personal computer, the optical mouse comprising:

a body having a predetermined space defined inside the body and having at least one lead securely provided inside the space and electrically connected to at least one contact line extending from the body;

at least one light emitting diode received and mounted inside the space defined inside the body having at least one lead to electrically connect with the lead, the light emitting diode being at a bottom of the body;

at least one control element also received in the predetermined space defined inside the body having at least one lead, the control element being arranged to be electrically connected to the lead;

an optical element securely received in the predetermined space defined within the body having at least one lead and positioned adjacent to the light emitting diode; and

at least one sensor also received in the predetermined space defined within the body having at least one lead, said sensor being arranged to electrically connect with the lead and to correspond to the light emitting diode,

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whereby the light from the light emitting diode is refracted by the optical element and picked up by the sensor.

11. (Canceled)

12. (Previously Presented) The modular optical mouse as claimed in claim 10, wherein the control element is a control IC.

13. (Canceled)

14. (Previously Presented) The modular optical mouse as claimed in claim 10, further comprising a second lens adjacent to the sensor.

15. (Previously Presented) The modular optical mouse as claimed in claim 10, wherein the light emitting diode and the at least one sensor are encapsulated inside the body.

16. (Previously Presented) The modular optical mouse as claimed in claim 10, wherein the light emitting diode, the sensor and the control element are C.O. B. Type.

17. (Previously Presented) The modular optical mouse as claimed in claim 10, wherein the body is adapted to be attached to a circuit board to align with a through hole in the optical mouse.

18. (Previously Presented) The modular optical mouse as claimed claim 10, wherein the sensor and the control element are integrally formed.

19. (Canceled)